

**Xhol**  
 1 CTCGAGAGCGGGCAGT GAGCGAACGCAATTAAATGTGAGTTAGCTCACTCATTAGGCACCCAGGTTACACTTT  
**EcoRI**      **RBS**  
 79 GCTCCCGGCTCGTATGTTGTTGGAATTGTGAGCGATAACAATTTCACACAGAATTCAITAAAGAGGGAAATTAAAC  
 PeI B leader      AlwNI  
 157 CATGAAATACCTATTGCCTACGGCAGCCGCTGGCTTGCTGGCAGCTCAGCCGCCATGGCGCAGGTGCAGCTG  
**Ncol**      **Serum A**  
 1 MetAlaGlnValGlnLeu  
**VH      anti-CD16**  
 235 CAGCAGTCTGGAGCTGAGCTGGTAAGGCCTGGACTTCAGTGAAGATATCCTGCAAGGCTCTGGCTACACCTTCACT  
 7 ▶ GlnGlnSerGlyAlaGluLeuValArgProGlyThrSerValLysIleSerCysLysAlaSerGlyTyrThrPheThr  
 CDR-H1      EcoRV      CDR-H2  
 313 AACTACTGGCTAGGTTGGGAAAAACAGAGGCCCTGGACATGGACTCGAGTGGATTGGAGATATCTACCCCTGGAGGTGGT  
 33 ▶ AsnTyrTrpLeuGlyTrpValLysGlnArgProGlyHisGlyLeuGluTrpIleGlyAspIleTyrProGlyGlyGly  
 391 TATACTAACTACAATGAGAAATTCAAGGCCAACAGTGCAGCACACATCCCTCAGAACACTGCCCTACGTGCAG  
 59 ▶ TyrThrAsnTyrAsnGluLysPheLysGlyLysAlaThrValThrAlaAspThrSerSerArgThrAlaTyrValGln  
 CDR-H3  
 469 GTCAGGAGCCTGACATCTGAGGACTCTGCTGTCTATTCTGTGCAAGATCGGCTAGCTGGTACTTCGATGTCCTGGGC  
 85 ▶ ValArgSerLeuThrSerGluAspSerAlaValTyrPheCysAlaArgSerAlaSerTrpTyrPheAspValTrpGly  
 CH1      HindIII Linker EcoRV  
 547 GCACGGACTACGGTCACCGTCTCCTCAGCCAAAACACCCAAAGCTGGCGGTGATATCGAGCTCACTCAGTCTCCA  
 111 ▶ AlaArgThrThrValThrValSerSerAlaLysThrThrProLysLeuGlyGlyAsp IleGluLeuThrGlnSerPro  
**VL      anti-CD30**  
 625 AAATTCATGTCCACATCAGTAGGAGACAGGGTCAACGTCACCTACAAGGCCAGTCAGAATGTTGGGTACTAATGTTAGCC  
 137 ▶ LysPheMetSerThrSerValGlyAspArgValAsnValThrTyrLysAlaSerGlnAsnValGlyThrAsnValAla  
 703 TGGTTTCAACAAAAACCAGGGCAATCTCTAAAGTTCTGATTACTCGGCATCTTACCGATACAGTGGAGTCCCTGAT  
 163 ▶ TrpPheGlnGlnLysProGlyGlnSerProLysValLeuIleTyrSerAlaSerTyrArgTyrSerGlyValProAsp  
 781 CGCTTCACAGGCAGTGGATCTGGAACAGATTCTCCTACCATCAGCAATGTGCAGTCTGAAGACTTGGCAGAGTAT  
 189 ▶ ArgPheThrGlySerGlyThrAspPheThrLeuThrIleSerAsnValGlnSerGluAspLeuAlaGluTyr  
 C kappa      NotI  
 859 TTCTGTCAGCAATATCACACCTATCCTCTCACGTTGGAGGGGCCACCAAGCTGGAAATCAAACGGGCTATGCTGG  
 215 ▶ PheCysGlnGlnTyrHisThrTyrProLeuThrPheGlyGlyGlyLysLeuGluIleLysArgAlaAspAlaAla  
 BamHI      c-myc epitope      His6 tail      Bg III  
 937 GCCGCTGGATCCGAAACAAAGCTGATCTCAGAAGAAGACCTAAACTCACATCACCACATCACCACATCAAAGATCTATT  
 241 ▶ AlaAlaGlySerGluGlnLysLeuIleSerGluGluAspLeuAsnSerHisHisHisHisHis  
**RBS**      **Pel B leader**  
 1015 AAAGAGGAGAAATTAAACCATGAAATACCTATTGCCTACGGCAGCCGCTGGCTTGCTGCTGGCAGCTCAGCCGGCC  
**Ncol**      **Serum A**  
**VH      anti-CD30**  
 1093 ATGGCGGCCATGGCCAGGTGCAACTGCAGCAGTCAGGGCTGAGCTGGCTAGACCTGGGCTTCAGTGAAGATGTC  
 1 ▶ MetAlaGlnValGlnLeuGlnGlnSerGlyAlaGluLeuAlaArgProGlyAlaSerValLysMetSer  
 1171 TGCAAGGCTCTGGCTACACCTTACTACACTACAAATACACTGGTAAGACAGAGGCCCTGGACACGATCTGAATGG  
 24 ▶ CysLysAlaSerGlyTyrThrPheThrThrIleHisTrpValArgGlnArgProGlyHisAspLeuGluTrp  
 1249 ATTGGATACATTAATCCTAGCAGTGGATATTCTGACTACAATCAGAACTCAGGCAAGACCACATTGACTGCAGAC  
 50 ▶ IleGlyTyrIleAsnProSerSerGlyTyrSerAspTyrAsnGlnAsnPheLysGlyLysThrThrLeuThrAlaAsp  
 1327 AAGTCCTCCAACACAGCCTACATGCAACTGAACAGCCTGACATCTGAGGACTCTGGGTCTATTACTGTGCAAGAAGA  
 76 ▶ LysSerSerAsnThrAlaTyrMetGlnLeuAsnSerLeuThrSerGluAspSerAlaValTyrTyrCysAlaArgArg  
 CH1  
 1405 GCGGACTATGGTAACACTGAATATACCTGGTTACTGGGGCCAAGGGACCACGGTCACCGTCTCCTCAGCCAAA  
 102 ▶ AlaAspTyrGlyAsnTyrGluTyrThrTrpPheAlaTyrTrpGlyGlnGlyThrThrValThrValSerSerAlaLys  
 HindIII Linker EcoRV **VL      anti-CD16**  
 1483 ACAACACCCAAGCTTGGCGGTGATATCCAGGCTGTTGACTCAGGAATCTGCACCTCACCATCACCTGGTGAAAC  
 128 ▶ ThrThrProLysLeuGlyGlyAspIleGlnAlaValValThrGlnGluSerAlaLeuThrThrSerProGlyGluTh  
 CDR-L1  
 1560 AGTCACACTCACTGGCTCAAATACTGGACTGTTACAACTAGTAACATGCCAAGCTGGGTCCAAGAAAAACCAGA  
 153 ▶ rValThrLeuThrCysArgSerAsnThrGlyThrValThrThrSerAsnTyrAlaAsnTrpValGlnGluLysProAs  
 CDR-L2  
 1638 TCATTTATTCACTGGCTAAATAGGTCAACCAACACCGAGCTCCAGGTGTTCTGCCAGATTCTCAGGCTCCCTGAT  
 179 ▶ pHisLeuPheThrGlyLeuIleGlyHisThrAsnAsnArgAlaProGlyValProAlaArgPheSerGlySerLeuI  
 CDR-L3  
 1716 TGGAGACAAGGCTGCCCTCACCATCACAGGGCACAGACTGAGGATGAGGCAATATATTCTGCTCTATGGTATAA  
 205 ▶ eGlyAspLysAlaAlaLeuThrIleThrGlyAlaGlnThrGluAspGluAlaIleTyrPheCysAlaLeuTrpTyrAs  
 Nol      BamHI  
 1794 CAACCATTGGGTGTTGGAGGAACCAAACGACTGACTGTCCTAGGCCAGCCAACTGCTGCGGCCGCTGGATCCGAACA  
 231 ▶ nAsnHisTrpValPheGlyGlyGlyThrLysLeuThrValLeuGlyGlnProLysSerAlaAlaGlySerGluG

*c-myc epitope*

|  |           |      |      |      |
|--|-----------|------|------|------|
|  | His6 tail | XbaI | BclI | NheI |
|--|-----------|------|------|------|

1872 AAAGCTGATCTCAGAAGAACCTAAACTCACATCACCATCACTAAATCTAGAGGCCIGTGCTAATGATCAGC  
257† nLysLeuIleSerGluGluAspLeuAsnSerHisHisHisHisHisHis

HpaI

1950 TAGCTTGGGCATCAATAAAACGAAAGGCTCAGTCGAAAGACTGGGCCCTTCGTTTATCTGTTGTTGCGGTTAAC  
Sall Earl Pvul FspI BglI

2028 GTGCACCTGGCGTAATAGCGAAGAGGCCGCACCGATGCCCTCCAACAGTTGCGCAGCCTGAATGCCAATGGGA  
2106 CGGCCCTGTAGCGCGCATTAAGCGGGGGGTGTTACGCGCAGCGTACACTGCCAGCGCCT  
Nael

2184 AGCGCCCGCTCTTCGCTTTCTCCCTTCTGCCACGTTGCCGGCTTCCCCGTCAGCTCTAAATCGGGG  
f1 IR

DraIII

2262 GCTCCCTTAGGGTTCCGATTTAGTCGTTTACGGCACCTCGACCCAAAAACTTGATTAGGGTGAATGGTACCGTAG  
2340 TGGGCCATGCCCTGATAGACGGTTTTCGCCCTTGACGTTGGAGTCACGTTTAATAGGACTCTGTTCCA  
2418 AACTGGAACAAACACTCAACCCTATCTCGGTCTATTCTTTGATTATAAGGGATTGCGGATTCGCCATTGGTT  
SspI

2496 AAAAATGAGCTGATTAACAAAAATTAAACGCAATTAAACAAAATTAAACGCTTACAATTAGGTGGCACTTT  
BspHI

2574 CGGGGAAATGTGCCGGAACCCCTATTGTTTCTAAATACATTCAAATATGTATCCGTCATGAGACAATAA  
SspI Earl

2652 CCCTGATAAAATGCTCAATAATATTGAAAAGGAAGAGTATGAGTATTCAACATTCCGTGTCGCCCTATTCCCTT  
Apal

2730 TTTGCCGATTTGCCCTGTTTGCTCACCCAGAAACGCTGGTGAAGTAAAGATGCTGAAGATCAGTTGGGT  
XmnI

2808 GCACGAGTGGGTTACATCGAACTGGATCTCAACAGCGTAAGATCCTGAGAGTTTCGCCCGAAGAACGTTTCCA  
DraI

2886 ATGATGAGCACTTTAAAGTTCTGCTATGTGGCGGGTATTATCCGTATTGACGCCGGCAAGAGCAACTCGTCGC  
Scal 1000

2964 CGCATAACACTATTCTCAGAATGACTTGTTGAGTACTCACCAGTCACAGAAAAGCATTTACGGATGGCATGACAGTA  
**β-Lactamase** Pvul

3042 AGAGAATTATGAGCTGCTGCATAACCATGAGTGATAACACTGCGGCCACTTACTTCTGACAACGATCGGAGGACCG  
3120 AAGGAGCTAACCGCTTTTGCAACATGGGGATCATGTAACCGCTTGATGGGAACGGAGCTGAATGAA  
FspI

3198 GCCATAACCAACGAGCGTGACACCAACGATGCCGTAGCAATGGCAACACGTTGCGCAAACATTAACTGGCGAA  
Asel

3276 CTACTTACTCTAGCTTCCGGCAACAAATTAAATAGACTGGATGGAGGCGATAAAGTTGCAAGGACCACTCTGCGCTCG  
BglI BsaI

3354 GCCCTCCGGCTGGCTGGTTATTGCTGATAAAATCTGGAGCCGGTGAGCGTGGGCTCGCGGTATCATTGCAAGCAGT  
3432 CGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTACTACACGACGGGAGTCAGGCAACTATGGATGAACGAAATA  
3510 CAGATCGCTGAGATAGGTGCCCTACTGATTAAGCATTGTAACTGTCAGACCAAGTTACTCATATATACTTTAGATT  
DraI DraI BspII

3588 GATTTAAAACCTCATTAAATTAAAAGGATCTAGGTGAAGATCCTTTTGATAATCTCATGACCAAAATCCCTTAA  
3666 CGTGAGTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTCTGCGC  
3744 GTAATCTGCTGTTGCAAACAAAAACCCACCGCTACCGAGCGGTGGTTGTTGCCGATCAAGAGCTACCAACTCTT  
3822 TTCCGAAGGTAACGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTCTAGTGTAGCCGTAGTTAGGCCACCAC  
AlwNI

3900 TTCAAGAACTCTGTTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAAGTGGCTGCTGCCAGTGGCGATAAG  
**Cole1** 2000 ApaLI

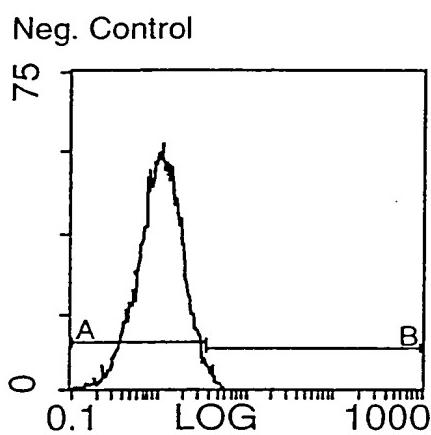
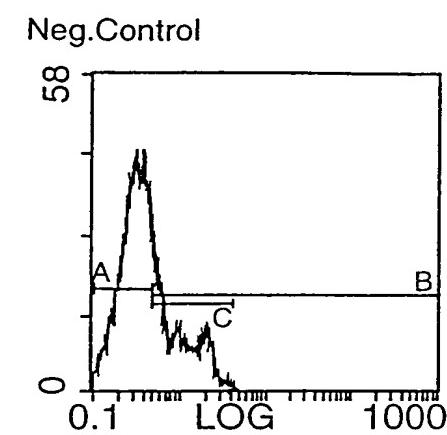
3978 TCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGATAAGGCGCAGCGGTGGCTGAACGGGGGTTCGTGC  
4056 ACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACTACAGCGTGAGCTATGAGAAAGCGCCACGCTT  
4134 CCCGAAGGGAGAAAGCGGACAGGTATCCGTAAGCGCAGGGTGGGAACAGGAGAGCGCAGCGAGGAGCTTCCAGGG  
4212 GGAAACGCCCTGGTATCTTATAGTCCTGCGGTTTCGCCACCTCTGACTTGAGCGTCGATTGTTGATGCTCGTCA  
4290 GGGGGCGGAGCCTATGGAAAAACGCCAGCAACCGGGCTTTTACGGTCTGCCCTTTGCTGCCCTTTGCTCAC  
4368 ATGTTCTTCCTGCCATTCCCTGATTCTGTTGATAACCGTATTACGCCCTTGAGTGAGCTGATACCGCTCGCCGC  
Earl

4446 AGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAGCGCCAAACGCAAACCGCCTCTCCCCCG  
Asel BspMI

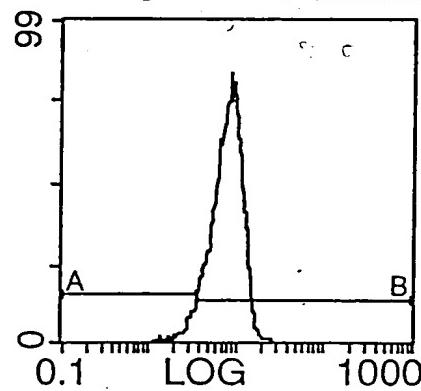
4524 CGTTGGCCGATTCAATTGAGGTATCACGAGGCCCTTCGTCTTCAC

Fig. 1 (cont'd)

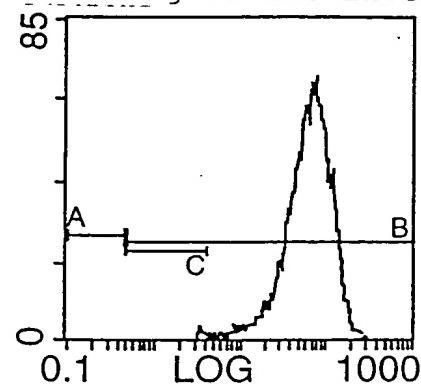
Fig. 2

Granulocytes (CD16<sup>+</sup>)L540CY cells (CD30<sup>+</sup>)

F<sub>v</sub> antibody construct  
according to the invention



F<sub>v</sub> antibody construct  
according to the invention



Fluorescence Intensity

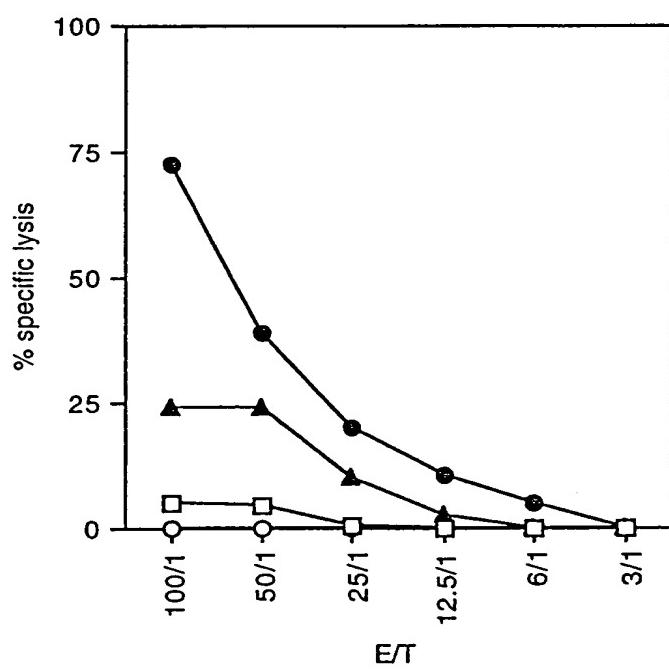
**Fig. 3**

Fig. 4

